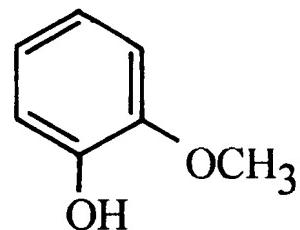
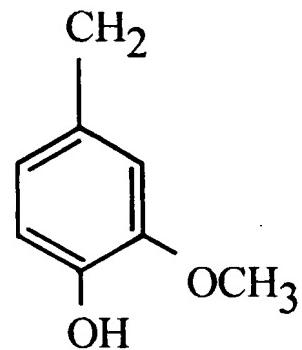
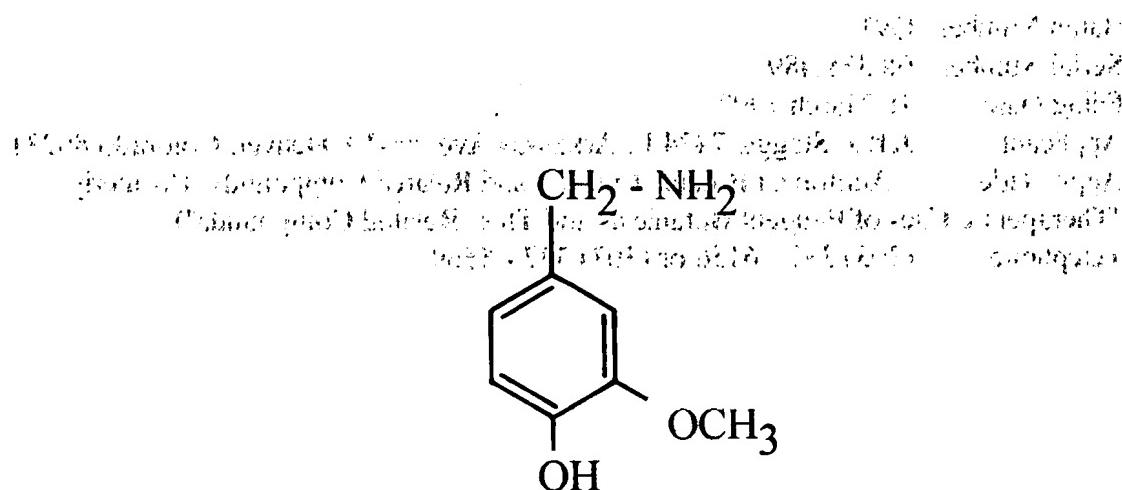
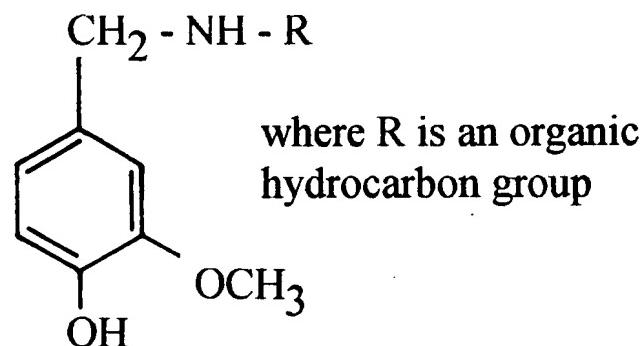
**FIGURE 1****FIGURE 2****FIGURE 3**



3-METHOXY-4-HYDROXYBENZYLAMINE
 $(\text{CH}_3\text{O})(\text{OH})\text{C}_6\text{H}_3\text{-CH}_2\text{-NH}_2$

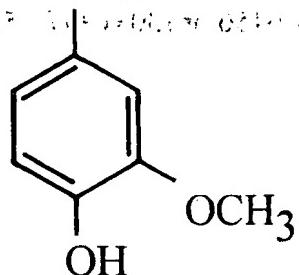
FIGURE 4



VANILLYLAMIDE $(\text{CH}_3\text{O})(\text{OH})\text{C}_6\text{H}_3 - \text{NH} - \text{R}$

FIGURE 5

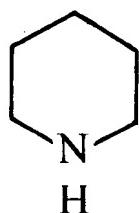
(1) Capsaicinide (2), 1953, O. H. Wichterle, et al., U.S. Patent 2,653,246, to the Sandoz Company
 (2) 4-hydroxy-2-methoxybenzylamine, 1954, O. H. Wichterle, et al., U.S. Patent 2,684,201, to the Sandoz Company
 (3) 4-hydroxy-2-methoxybutylamine, 1954, O. H. Wichterle, et al., U.S. Patent 2,684,202, to the Sandoz Company



$R - CO - (CH_2)_4 - CH = CH - CH - (CH_3)_2$	CAPSAICIN
$R - CO - (CH_2)_6 - CH - (CH_3)_2$	DIHYDRO "
$R - CO - (CH_2)_5 - CH - (CH_3)$	NORDIHYDRO "
$R - CO - (CH_2)_9 - CH - (CH_3)_2$	HOMODIHYDRO "
$R - CO - (CH_2)_5 - CH = CH - CH (CH_3)_2$	HOMO "
$R - CO - (CH_2)_7 - CH_3$	NONANOIC ACID VANILLYLAMIDE
$R - CO - (CH_2)_8 - CH_3$	DECANOIC ACID VANILLYLAMIDE

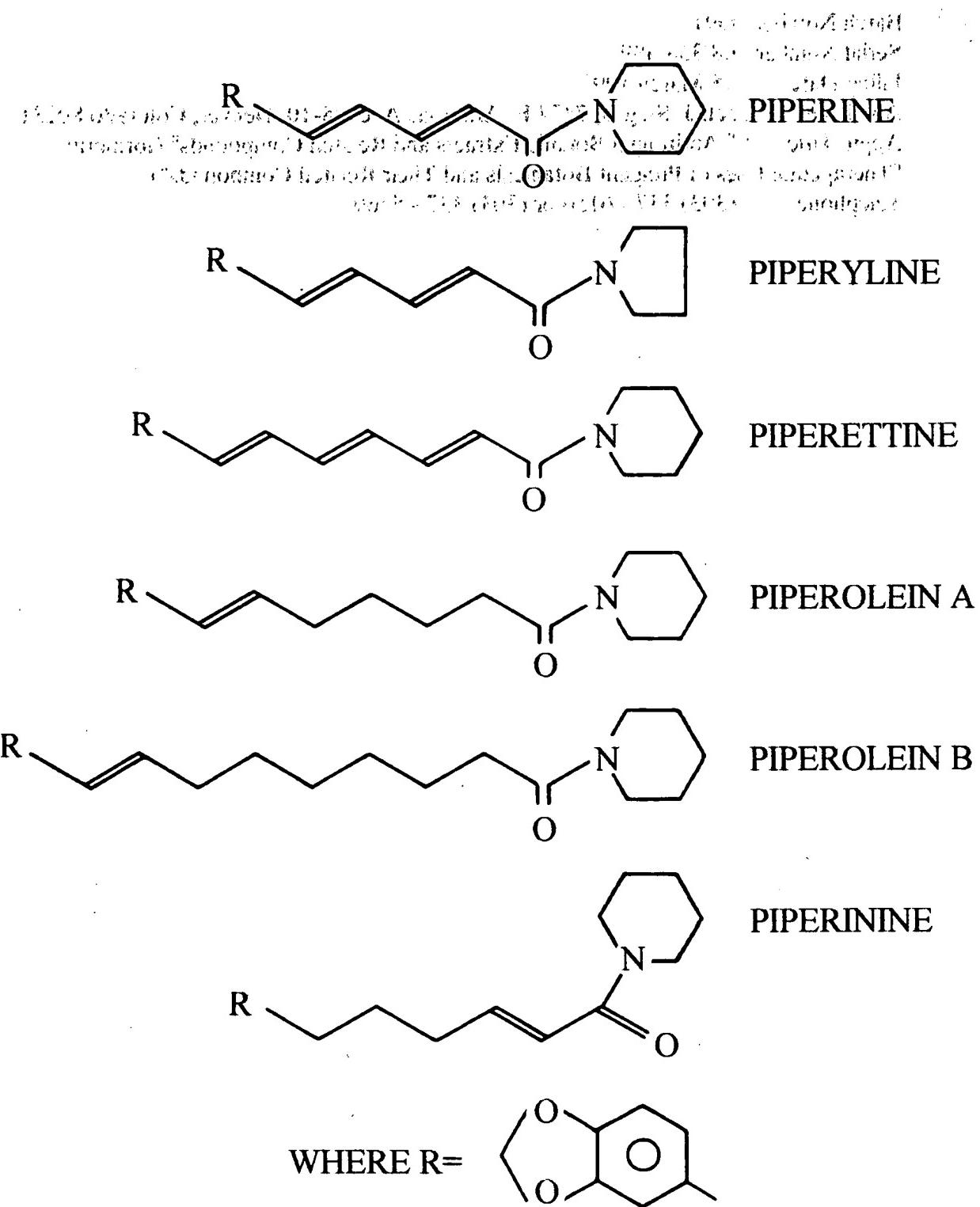
CAPSAICINOIDS

FIGURE 6



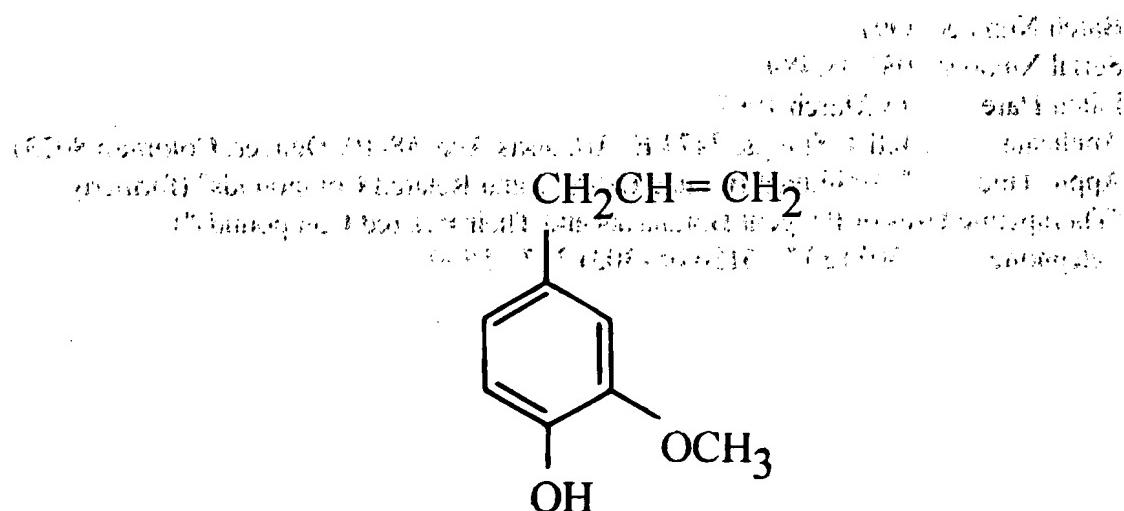
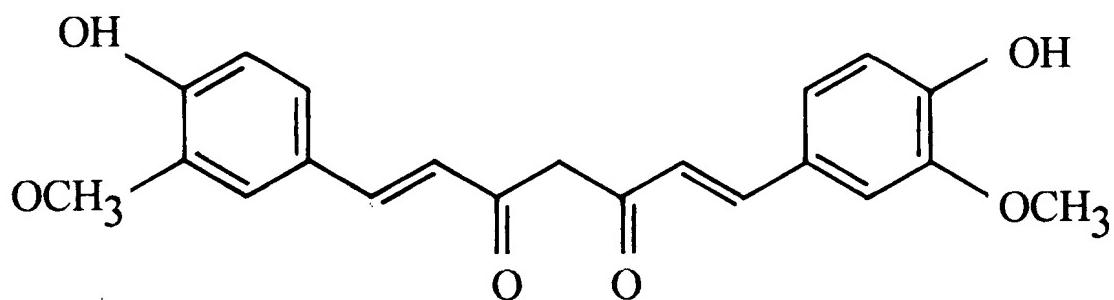
PIPERIDINE $(CH_2)_5NH$

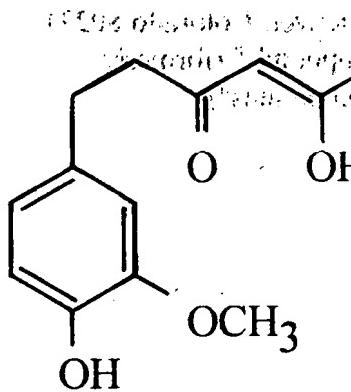
FIGURE 7



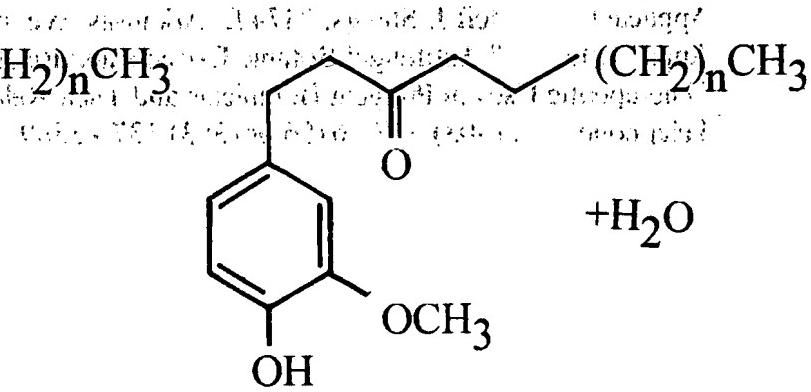
PUNGENT ALKALOIDS PRINCIPALS OF PEPPER

FIGURE 8

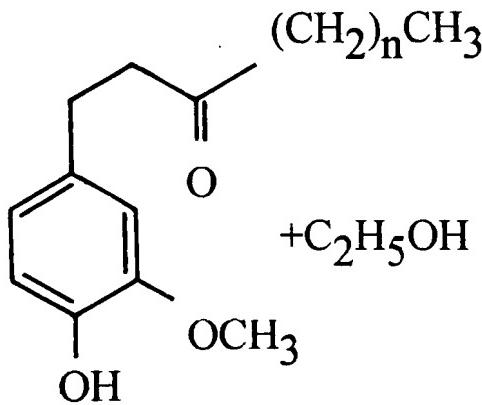
**FIGURE 9****CURCUMIN C₂₁H₂₀O₆****FIGURE 10**



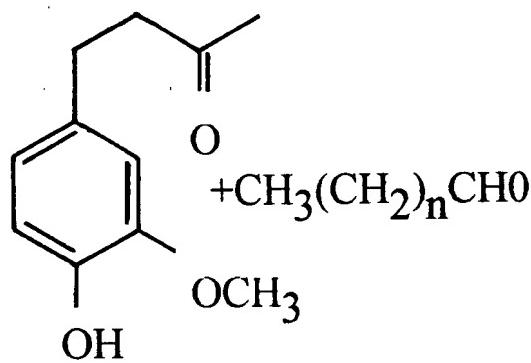
GINGEROL

SHOGAOL C₁₇H₂₄O₃

(where n = 4, 6, or 8)



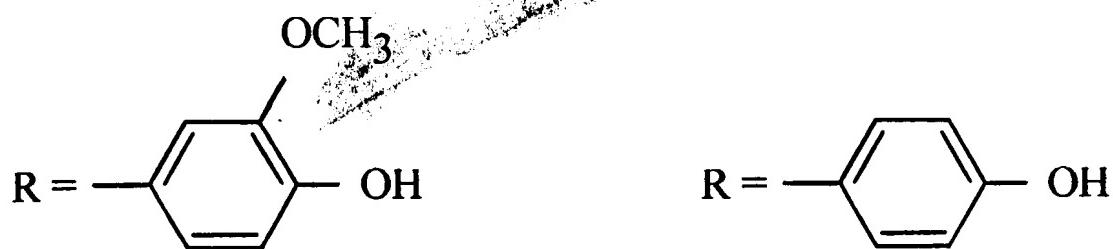
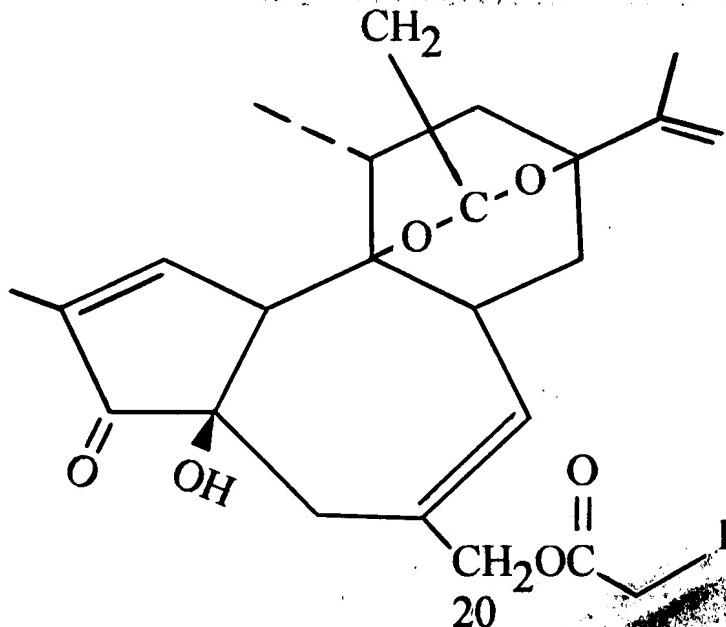
PARADOL

ZINGERONE C₁₁H₁₄O₃

GINGEROLS

FIGURE 11

Chemical structures of Resiniferatoxin and Tinyatoxin. Resiniferatoxin is a diterpenoid alkaloid with a complex polycyclic system of fused rings. It features a tricyclic core with a cyclohexenone group, a cyclopentenone group, and a cyclohexene group. A phenyl ring is fused to the cyclohexene group. A hydroxyl group (OH) is located on the cyclopentenone ring. A carboxylic acid side chain is attached to the cyclohexenone ring, labeled with the number 20. A methyl group (CH₃) is attached to the cyclohexenone ring. A double-headed arrow indicates a chiral center. A phenyl ring is also attached to the cyclohexenone ring.



RESINIFERATOXIN

FIGURE 12

TINYATOXIN

FIGURE 13